

THE CLAIMS

1 1-12. (cancelled)

1 13. (currently amended) A cladding tube for nuclear fuel, a majority component of the
2 cladding tube being made of a zirconium-based alloy suitable for use in a corrosive environment
3 where it is subjected to increased radiation, the alloy having a quality and impurity level,
4 including up to 1600 ppm O and up to 120 ppm Si, suitable for use in nuclear reactors, the alloy
5 consisting essentially of:

6 0.65-1.6 percent by weight Nb;
7 0.3-0.6 percent by weight Fe;
8 0.65-0.85 percent by weight Sn; and
9 the balance being Zr.

1 14-21. (canceled)

1 22. (previously presented) The cladding tube according to claim 13, wherein at least a part of
2 an inner circumference of the cladding tube is provided with a layer of a material that is more
3 ductile than the alloy.

1 23. (previously presented) The cladding tube according to claim 22, wherein the layer
2 comprises a zirconium-based alloy having a total content of alloying elements that does not
3 exceed 0.5 percent by weight.

1 24-34. (canceled)

1 35. (currently amended) A cladding tube for nuclear fuel, a majority component of the
2 cladding tube being made of a zirconium-based alloy suitable for use in a corrosive environment
3 where it is subjected to increased radiation, the alloy having a quality and impurity level,
4 including, optionally, 500-1600 ppm O and, optionally, 50-120 ppm Si, suitable for use in
5 nuclear reactors, the alloy consisting essentially of:

6 0.65-1.6 percent by weight Nb;
7 0.3-0.6 percent by weight Fe;
8 0.65-0.85 percent by weight Sn; and
9 the balance being Zr.

1 36. (previously presented) The cladding tube according to claim 35, wherein at least a part of
2 an inner circumference of the cladding tube is provided with a layer of a material that is more
3 ductile than the alloy.

1 37. (previously presented) The cladding tube according to claim 36, wherein the layer
2 comprises a zirconium-based alloy having a total content of alloying elements that does not
3 exceed 0.5 percent by weight.

1 38. (currently amended) A cladding tube for nuclear fuel, a majority component of the
2 cladding tube being made of a zirconium-based alloy suitable for use in a corrosive environment
3 where it is subjected to increased radiation, the alloy having a quality and impurity level,
4 including 500-1600 ppm O and 50-120 ppm Si, suitable for use in nuclear reactors, the alloy
5 consisting essentially of:

6 0.65-1.6 percent by weight Nb;
7 0.3-0.6 percent by weight Fe;
8 0.65-0.85 percent by weight Sn; and
9 the balance being Zr.

1 39. (previously presented) The cladding tube according to claim 38, wherein at least a part of
2 an inner circumference of the cladding tube is provided with a layer of a material that is more
3 ductile than the alloy.

1 40. (previously presented) The cladding tube according to claim 39, wherein the layer
2 comprises a zirconium-based alloy having a total content of alloying elements that does not
3 exceed 0.5 percent by weight.

1 41. (currently amended) A cladding tube for nuclear fuel, a majority component of the
2 cladding tube being made of a zirconium-based alloy suitable for use in a corrosive environment
3 where it is subjected to increased radiation, the alloy having a quality and impurity level suitable
4 for use in nuclear reactors, the alloy consisting essentially of:

5 0.65-1.6 percent by weight Nb;
6 0.3-0.6 percent by weight Fe;
7 0.65-0.85 percent by weight Sn; and
8 the balance being Zr.

1 42. (previously presented) The cladding tube according to claim 41, wherein at least a part of
2 an inner circumference of the cladding tube is provided with a layer of a material that is more
3 ductile than the alloy.

1 43. (previously presented) The cladding tube according to claim 42, wherein the layer
2 comprises a zirconium-based alloy having a total content of alloying elements that does not
3 exceed 0.5 percent by weight.